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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,721	01/22/2004	Edgar N. Rudisill	SS2910USCNT1	5196

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E I DU PONT DE NEMOURS AND COMPANY
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WILMINGTON, DE 19805

EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,721

Applicant(s)

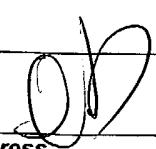
RUDISILL ET AL.

Examiner

Norca L. Torres-Velazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 76-94 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>30104 50604 70604</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 80-82 and 87-88 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only and/or cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). For Examining purposes, the Examiner treats the limitations claimed in the dependent claims above as being directly dependent of the dependent claims 76, 79, 83 and 86 only.
2. Claim 81 is objected to because of the following informalities: it claims that the fiber have an average fiber size of less than about $75 \mu\text{m}^2$. It is noted that according to Applicants specification and the units recited, it should read, "that the fiber has an cross-section of less than about $75 \mu\text{m}^2$. For examining purposes, the Examiner assumes that Applicants are referring to the cross-section of the fibers. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
4. Claims 76-94 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 76, 79, 83 and 86 recite physical properties of a bonded nonwoven fabric with at least one nonwoven layer of spunbond fibers with a basis weight between about $13\text{-}125 \text{ g/m}^2$ (i.e. grab tensile strength, Frazier permeability and hydrostatic head). *Ex parte Slob*, 157 USPQ 172, states the following with regard to an article claimed by defining property values:

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Claims merely setting forth physical characteristics desired in article, and not setting forth specific compositions which would meet such characteristics, are invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in future and which would impart desired characteristics; thus expression "a liquefiable substance having a liquefaction temperature from about 40°C. to about 300°C. and being compatible with the ingredients in the powdered detergent composition" is too broad and indefinite since it purports to cover everything which will perform the desired functions regardless of its composition, and, in effect, recites compounds by what it is desired that they do rather than what they are; expression also is too broad since it appears to read upon materials that could not possibly be used to accomplish purposes intended.

Thus, independent claims 76, 79, 83 and 86 are indefinite for reciting only the desired physical properties of the nonwoven fabric, rather than setting forth structural and/or chemical characteristics of said nonwoven fabric that provide the specific properties claimed. Further, dependent claims 77-78, 80-82, 84-85 and 87-94 are also rejected as being dependent on indefinite claims. It is noted that while the basis weight, that the fibers are spunbonded and that the fabric is bonded provide some structure to the invention, these structural limitations are not sufficient such as to differentiate the nonwoven fabric from the prior art. And further, it is noted that

Reciting the physical and chemical characteristics of the claimed product will not suffice where it is not certain that a sufficient number of characteristics have been recited that the claim reads only on the particular compound which the applicant has invented. *Ex parte Siddiqui* 156 USPQ 426 ; *Ex parte Davission et al.* 133 USPQ 400 ; *Ex parte Fox* 128 USPQ 157

In the present application, for example, no physical characteristic directed to the nature of the compound or material used in the production of the fibers forming the nonwoven is claimed. It is not proper to seek patent protection on materials/chemicals that might be discovered in the future that could provide the nonwoven fabric with the presently claimed properties.

Claim Rejections - 35 USC § 102/103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 76-79, 81-86, 88-91 and 93-94 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over OFOSU et al. (US 6,268,302 B1)

OFOSU et al. is directed to a soft and strong nonwoven spunbond polyolefin fabric for use in medical products and protective covers. (Col. 1, lines 42-67) The reference teaches the use of thermal calendering in the formation of the fabric. (Col. 5, lines 1-5) OFOSU et al. discloses a spunbond/spunbond (SS) laminate with a basis weight of each of the layers of 34 gsm and that both layers were made polypropylene. In their examples the reference uses polypropylene of different melt flow rate. (Columns 9-10) The reference anticipates the limitations of a bonded nonwoven fabric comprising at least one nonwoven layer of spunbond fibers and the fabric having a basis weight between about 13-125 g/m² [the basis weight of the fabric is 68 gsm when the basis weight of both layers is added]. The product of OFOSU et al. meets the limitations of a bonded nonwoven fabric with at least one nonwoven layer of spunbond fibers and meets the basis weight limitation. Further, OFOSU et al. also teaches

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spunbond/meltblown/spunbond embodiments in their invention. (Col. 5, lines 6-8) OFOSU et al. teaches that the fibers of their invention have an average diameter of from about 0.5 microns to about 50 microns. (Col. 2, lines 35-38) [The corresponding cross-section for fibers with these diameters is $0.785 - 7850 \mu\text{m}^2$].

Although OFOSU et al. does not explicitly teach the claimed grab tensile strength, Frazier permeability, hydrostatic head properties and cross sectional void percentage, it is reasonable to presume that these properties are inherent to OFOSU et al. Support for said presumption is found in the use of like materials (i.e. layers of spunbond fibers, the use of thermal calendaring to form the fabric and basis weight that reads on the claimed values). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of a grab tensile strength in both the MD and the CD between at least about $1 \text{ N}/(\text{g}/\text{m}^2)$, normalized for basis weight, and the combinations of Frazier permeability at and hydrostatic heads claimed herein would obviously have been present once the OFOSU et al. product is provided. Also the cross sectional void percentage of at least about 85 percent would obviously have been present once the OFOSU et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

8. Claims 80, 87 and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over OFOSU et al. as applied above, and further in view of McAmish et al. (US 4,908,163).

While OFOSU et al. teaches the use of their fabric in medical products and protective covers, it fails to teach the use of a fluorochemical coating.

McAMISH et al. discloses a nonwoven fabric made of unreinforced microfiber (melt-blown) webs that are suitable for use as medical fabrics. The reference teaches that for applications requiring repellency, such as for surgical gowns and drapes, the fabric can be treated further with suitable repellent chemicals. Fluorochemicals are normally employed to impart repellency. (Col. 10, lines 64-68)

It is further noted that the structure of fabric of the McAmish et al. reference is very similar to the structure of the present invention in that it is a bonded nonwoven fabric with basis weight within the ranges claimed herein. (Refer to Col. 3, lines Col 11, lines 10-13) Further, it provides grab tensile values and Frazier permeability that would read on the present application. However, the reference uses melt-blown fibers instead of spunbond fibers. (Also refer to first table on Column 15, fabric 1) Fabrics 3 and 7 of that table disclose values for fabrics that comprise spunbond web layers. (Refer to Col. 14, lines 48-51, 65-68 and first table of Col. 15)

Since both, OFOSU et al. and McAMISH et al. are directed to nonwoven fabrics, the purpose disclosed by McAMISH et al. would have been recognized in the pertinent art of OFOSU et al.

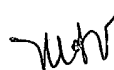
It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the fabric the OFOSU et al. and provide with a fluorochemical coating with the motivation of imparting repellency and using the fabric in applications such as surgical gowns as disclosed by McAMISH et al. (Col. 10, lines 64-68).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Norca L. Torres-Velazquez
Examiner
Art Unit 1771

August 20, 2004